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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number		
			Filing Date <u>March 4, 2004</u>		
			First Named Inventor <u>Juan Manuel CRUZ-HERNANDEZ</u>		
			Group Art Unit		
Examiner Name					
Sheet	1	of	1	Attorney Docket Number <u>IMMR-063/00US</u>	

PTO/SB/08A (08-00)

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code ² (if known)				
<u>NKI</u>	A1	6,078,126		Rollins et al	06/20/2000		
	A2	5,945,772		Macnak et al	08/31/1999		
	A3	5,894,263		Shimakawa et al	04/13/1999		
	A4	5,436,622		Gutman et al	07/25/1995		
<u>NKI</u>	A5	5,245,245		Goldenberg et al	09/14/1993		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
<u>NKI</u>	C1	Raquet, "Vibration analysis for beams", <i>Memorandum to MEGR 3152 class</i> , Chapter 6, pp. 1 - 12			
<u>NKI</u>	C2	Kashani, "Tuned Mass Dampers and Vibration Absorbers," www.deicon.com , pp. 1 - 5			
<u>NKI</u>	C3	Malatkar, "Nonlinear Vibrations of Cantilever Beams and Plates," <i>Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Engineering Mechanics</i> , July 3, 2003, pp. 1 - 112			

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196746 v1/RE

47T601!.DOC

¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

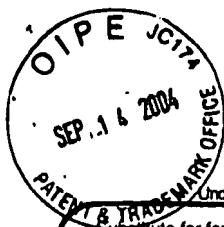
⁶ Applicant is to place a check mark here if English language Translation is attached.

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² Applicant is to place a check mark here if English language Translation attached.

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PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 10

Complete if Known

Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NK/		6,585,595	07-01-2003	Soma	
↑		6,433,771	08-2002	Yocum et al.	
		6,424,333	07-23-2002	Tremblay	
		6,422,941	7/23/2002	Thomer et al.	
		6,317,032	11-13-2001	Oishi	
		6,275,213	08-14-2001	Tremblay	
		6,211,861	04-03-2001	Rosenberg	
		6,198,206	03-06-2001	Saarmaa	
		6,184,868	02-06-2001	Shaholian	
		6,181,318	01-2001	Lim	
		6,160,489	12/12/2000	Perry et al.	
		6,111,577	8/29/2000	Zilles et al.	
		6,104,158	08-15-2000	Jacobus	
		6,088,019	07-11-2000	Rosenberg	
		6,088,017	07-11-2000	Tremblay	
		6,078,126	06-20-2000	Rollins	
		6,046,726	04-2000	Keyson	
		6,044,646	04-04-2000	Silverbrook	
		6,004,134	12-21-1999	Marcus	
		6,001,014	12-14-1999	Ogata	
		5,986,643	11-16-1999	Harvill	
		5,984,880	11-16-1999	Lander	
		5,973,670	10-26-1999	Barber	
		5,945,772	08-31-1999	Macnak	
		5,914,705	06-22-1999	Johnson	
		5,914,705	06-1999	Johnson et al.	
		5,897,437	04-27-1999	Nishiumi	
		5,894,263	04-13-1999	Shimakawa	
		5,889,672	03-30-1999	Schuler	
		5,857,986	01-12-1999	Moriyasu	
		5,828,363	10-1998	Yaniger et al.	
NK/		5,805,140	09-08-1998	Rosenberg	
		5,790,108	08-04-1998	Salcudean	

Examiner Signature	Vincent Kovalick/	Date Considered	07/09/2007
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Art Unit	2675
Examiner Name	Not Yet Assigned
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NK/		5,785,630	07/28/1998	Bobick, et al.	
		5,784,052	07-21-1998	Keyson	
		5,781,172	07-14-1998	Engel	
		5,766,016	06/16/1998	Sinclair et al.	
		5,754,023	05-19-1998	Roston	
		5,742,278	04-21-1998	Chen	
		5,739,811	04-14-1998	Rosenberg	
		5,736,978	04-07-1998	Hasser	
		5,734,373	03-31-1998	Rosenberg	
		5,714,978	02-03-1998	Yamanaka	
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		5,684,722	11-04-1997	Thomer	
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		5,661,446	08-26-1997	Anderson	
		5,643,087	07-01-1997	Marcus	
		5,631,861	05-20-1997	Kramer	
		5,619,180	04-08-1997	Massimino	
		5,589,828	12-31-1996	Armstrong	
		5,589,828	12-1996	Armstrong	
		5,587,937	12-24-1996	Massie	
		5,583,478	12-10-1996	Renzi	
		5,580,251	12-03-1996	Gilkes	
		5,575,761	11/19/1996	Hajianpour	
		5,565,840	10-15-1996	Thomer	
		5,547,382	08/20/1996	Yamasaki et al.	
		5,466,213	11/14/1995	Hogan et al.	
		5,440,183	08-08-1995	Denne	
		5,437,607	8/1/1995	Taylor	
		5,436,622	7/25/1995	Gutman et al.	
NK/		5,405,152	04-11-1995	Katanics	
		5,399,091	03-21-1995	Mitsumoto	

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of

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First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

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NK/		5,388,992	02-14-1995	Franklin	
A		5,354,162	10-11-1994	Burdea	
		5,334,027	08/02/1994	Wherlock	
		5,309,140	05/03/1994	Everett, Jr., et al.	
		5,299,810	04/05/1994	Pierce et al.	
		5,296,871	03-22-1994	Paley	
		5,283,970	2/8/1994	Aigner	
		5,275,174	01/04/1994	Cook	
		5,271,290	12/21/1993	Fischer	
		5,261,291	11-1993	Schoch et al.	
		5,240,417	08/31/1993	Smithson et al.	
		5,227,594	07-1993	Russo	
		5,212,473	05/18/1993	Louis	
		5,203,563	04-20-1993	Loper, III	
		5,186,695	2/16/1993	Mangseth et al.	
		5,186,629	02-16-1993	Rohen	
		5,184,319	02-02-1993	Kramer	
		5,175,459	12/29/1992	Danial et al.	
		5,172,092	12-15-1992	Nguyen et al.	
		5,165,897	11/24/1992	Johnson	
		5,146,566	09-08-1992	Hollis Jr.	
		5,107,282	04-21-1992	Cadoz	
		5,103,404	04-07-1992	McIntosh	
		5,078,152	01/07/1992	Bond et al.	
		5,038,089	08/08/1991	Szakaly	
		5,035,242	07/30/1991	Franklin et al.	
		5,022,407	06/11/1991	Horch et al.	
		5,022,384	6/11/1991	Freels	
		5,019,761	05/28/1991	Kraft	
		4,934,694	06/19/1990	McIntosh	
		4,930,770	06/05/1990	Baker	
		4,891,764	01/02/1990	McIntosh	
NK/		4,885,565	12/5/1989	Embach	

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Sheet **4** of **10****Complete if Known**

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Art Unit	2675
Examiner Name	Not Yet Assigned
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/VK/ A		4,885,585	12-05-1989	Embach	
		4,868,549	09-19-1989	Merril	
		4,795,298	01-03-1989	Jau	
		4,794,392	12/27/1988	Selinko	
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		4,581,491	04/08/1986	Boothroyd	
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		4,484,191	11/20/1984	Vavra	
		4,473,725	09-1984	Kim	
		4,464,117	8/7/1984	Foerst	
		4,459,440	07-1984	Wiczer	
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		4,262,549	4/21/1981	Schwellenbach	
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		4,127,752	11/28/1978	Lowthorp	
		4,160,508	07/10/1979	Salisbury, Jr.	
		3,919,691	11-11-1975	Noll	
		3,911,416	10/07/1975	Feder	
		3,903,614	09/09/1975	Diamond et al.	
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		3,623,064	11/23/1971	Kagan	
		3,517,446	06/30/1970	Corlyon et al.	
		3,497,668	02/24/1970	Hirsch	
		3,220,121	11/30/1965	Cutler	
		3,157,853	11/17/1964	Hirsch	
		2002/0142701	10-2002	Rosenberg	
/VK/		2002/0030663	03-14-2002	Tierling	

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First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

Sheet	5	of	10
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Attorney Docket Number	IMMR063/00

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Sheet	6	of	10
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
NKJ		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
NKJ		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
NKJ		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
NKJ		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.

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Sheet **7** of **10****Complete if Known**

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Art Unit	2675
Examiner Name	Not Yet Assigned
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NKI		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
NKI		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," PRESENCE, 4(4):387-402, Harvard Univ., 1995.
↑		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, <i>Dynamic Systems and Control</i> : Volume 1, ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).
NKI		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
NKI		SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994

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NK/		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992
NK/		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.
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Sheet 9

of

10

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Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
NK/		Adelstein et al., "Design and Implementation of a Force Reflecting Manipulandum for Manual Control research," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 1-12, 1992
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NKJ		IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990
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